

## MOBILE TELECOMMUNICATIONS NETWORK WITH IMPROVED DOWNLINK CAPACITY

### Abstract of the Disclosure

According to the SDMA approach, the beamformer employed at each base  
5 station of a GSM network is designed to resolve in space the multiple co-channel  
users allowed in the cell sector by generating appropriate beam patterns for each one  
of them. Nevertheless, there are case where the CIR of one of the co-channel mobile  
users, monitored in the base station BS, falls below a preset threshold value. In this  
case a channel re-allocation is instructed for this user. This allows either tighter reuse  
10 of channels for the same number of users in each cell/sector or an increased number of  
co-channel users in each cell/sector.

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